

examined combinations of social determinants that produce detrimental behavioral health. We applied a data mining method to explore combinations of social determinants that is associated with higher prevalence of smoking. **METHODS:** We analyzed data from the 1992-2015 Current Population Survey – Tobacco Use Supplement (n=1,593,413, aged 18 years or above). A Classification and Regression Tree model was applied. Current smoking was the dependent variable. Independent variables included survey year, age, gender, ethnicity, race, annual household income, number of people in the household, education, employment, marital status, citizenship status, self and parent region of birth, census region, and metropolitan status. Inclusion of variables in the final model were based on the GINI index. **RESULTS:** Five population segments were identified with varying prevalence of smoking. They are (1) adults with at least an academic associate degree (32% of the population; prevalence of smoking=10%), (2) adults without an academic associate degree and aged 64 years or above (15% of the population; prevalence of smoking=11%), (3) adults without an academic associate degree, aged <64 years, and whose fathers born outside of the US and European countries (7% of the population; prevalence of smoking=14%), (4) adults without an academic associate degree, aged <64 years, with father born in the US and European countries, and annual household income \$35,000 or more (25% of the population; prevalence of smoking=25%), and (5) adults without an academic associate degree, aged <64 years, with father born in the US and European countries and annual household income <\$35,000 (21% of the population; prevalence of smoking=38%). **CONCLUSIONS:** Overlapping of social determinants of health produces higher prevalence of smoking among US adults. Future studies need to examine how smoking behaviors differ between smokers across these segments. Interventions should target individuals with overlapping social determinants to reduce tobacco use disparities.

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POS2-60

E-CIGARETTE AND CIGARETTE PRICES AND E-CIGARETTE USE AMONG YOUTH AND YOUNG ADULTS

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BACKGROUND: Use of electronic nicotine delivery systems (ENDS) among US youth has been a significant concern in recent years. A substantial body of evidence finds that higher cigarette prices is one of the most effective ways to deter youth cigarette smoking, especially for those progressing from experimentation to regular use. Yet little is known about the impact of ENDS or cigarette prices on youth ENDS use. **OBJECTIVE:** The goal of this study is to examine the impact of ENDS prices and cigarette prices on use of ENDS among US youth and young adults. **METHODS:** This study used data from the first 5 waves of a nationally representative longitudinal cohort survey of 14,000 15-21 year olds (surveyed from 4/2014 to 10/2016). ENDS use in the past 30-days prior to the survey was examined. ENDS and cigarette price data were from Nielsen commercial retail scanner data, representing the average retail price of ENDS and cigarettes in a given retail market. Price data were linked with the TLC data using state and county FIPS and year and interview time. Logistic models and fixed-effects models assessed the impact of prices on ENDS use, controlling for demographics and socioeconomic status. **RESULTS:** Higher reusable ENDS prices were associated with a lower probability of ENDS use. Disposable ENDS prices were negatively associated with ENDS use, but the association was not significant, possibly due to small variations in disposable prices. Cigarette prices were not significantly associated with ENDS use. **CONCLUSION:** To our knowledge, findings provide the first empirical evidence of ENDS and cigarette price impact on youth ENDS use. Results suggest that raising ENDS prices, particularly reusable ENDS price, will likely reduce ENDS use among youth. Cigarette prices do not seem to be an important factor in using ENDS among youth. Results have implications for price- and tax-focused strategies and policies that aim to reduce ENDS use among youth and young adults.

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POS2-61

POPULATION ASSESSMENT OF TOBACCO AND HEALTH (PATH) STUDY BIOSPECIMEN ACCESS PROGRAM

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BACKGROUND: The PATH Study is an ongoing national cohort study designed to generate longitudinal epidemiologic data on tobacco use behaviors, exposures, and related health conditions. Wave 1 (W1) is a nationally representative sample of 13,651 youth (12-17yr) and 32,320 adults (≥18yr) current users of a wide array of tobacco products, former tobacco product users, and nonusers. Biospecimens and questionnaire data are collected from participants in four annual waves with three planned biennial waves. The PATH Study Biospecimen Access Program (BAP) is a resource access award (PAR-17-458) that provides the research community with access to urine, serum and plasma collected from PATH Study participants. Data from these biospecimens can be linked to the questionnaire and biomarker data available at NAHDAP: <https://doi.org/10.3886/Series606> **Methods:** For W1, all consenting adults were asked to provide up to three biospecimens (urine, blood, and buccal cells). Currently, urine from 21,801 participants, and blood (serum and plasma) specimens from 14,520 participants are available to the research community (buccal cells are not available). Investigators can apply for biospecimens by first submitting a concept statement, and if approved, a full application using the NIH X01 grants submission process. Applications are reviewed against similar criteria as NIH grants. There are two review cycles per year, each review cycle takes about eight months. Investigators proposing meritorious and feasible studies consistent with PATH Study objectives and/or research priorities for tobacco regulatory science will be given highest priority for access to these biospecimens. For more information about the application process and submission schedule, please see the BAP webpage: <http://bit.ly/2wBF0tc> **Regulatory Significance:** The PATH Study BAP will provide access to biospecimens that can be linked to questionnaire data, allowing the research community to address a broad range of research questions to inform FDA's regulatory mission under the Family Smoking Prevention and Tobacco Control Act (2009).

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POS2-62

CIGARETTE USE AMONG US PERSONS WITH DRUG USE DISORDERS FROM 2002 TO 2014: EMERGING DISPARITIES IN VULNERABLE POPULATIONS

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SIGNIFICANCE: Cigarette smoking continues to decline in the United States (US). However, it is not known whether the decline is found among groups with high smoking prevalence, e.g., persons with drug use disorders (DUDs). The present study used epidemiologic data to estimate national trends in cigarette smoking from 2002 to 2014 among US persons with and without DUDs. **METHODS:** Data were drawn from the 2002-2014 National Survey on Drug Use and Health (NSDUH) public use data files (n=723,283). Linear time trends of current smoking prevalence were assessed using logistic regression models for persons with any DUD, DUDs excluding cannabis use disorders (CUDs), CUDs, and without any DUD. **RESULTS:** Among those with DUDs excluding CUD, the prevalence of smoking increased significantly from 2002 to 2014 (p<0.001). There was no change in smoking prevalence among those with any DUD or CUDs. Cigarette smoking prevalence declined from 2002 to 2014 among those without a DUD. In 2014, cigarette use remained significantly more common among those with any DUD (55.5%), DUDs excluding CUDs (63.3%), and CUDs (51.4%) compared with those without the respective disorders (18.2%, 18.6%, and 18.6%). **CONCLUSIONS:** In contrast to declines in the US general population, the prevalence of cigarette smoking increased from 2002 to 2014 among people with non-cannabis DUDs and did not decline among those with CUDs and any DUD. Further, the